

EXHIBIT 16

*High-performance Ethernet switch solutions for
medium-to large-sized businesses*



IBM 8275 Fast Ethernet Workgroup Switch Models 318, 322 and 326

Highlights

Three models offering copper and fiber flexibility

100BASE-FX and 10/100BASE-T client-side ports

1000BASE-SX Gigabit Ethernet and 100BASE-FX uplink options for high-speed to backbone or server

RMON support for events, alarms, history and statistics

Automatic MAC address aging

Simple Network Management Protocol (SNMP) and Web-based management

Cut-through and store-and-forward modes

Support for 8192 MAC addresses per switch

High-performance Ethernet LAN switching

Available in a convenient rack-mountable desktop unit

VLAN support

Full- and half-duplex operations

Port-trunking and port-mirroring capabilities

High-performance Ethernet switch

The new IBM 8275 Fast Ethernet Workgroup Switch Models 318, 322 and 326 are the latest additions to the fast-growing 10/100 Ethernet Switch family. These high-performance Fast Ethernet switches are ideal for medium- to large-sized workgroups that require the flexibility of 10/100 Mbps or 100BASE-FX client attachments along with high-speed uplink and server capabilities. Models 318 and 322 are the first members of the Ethernet switch product family to offer a significant number of 100BASE-FX fiber ports for high-speed client attachment. Each of the 8275 models has two option slots that can be equipped with one or two 2-port 100BASE-FX fiber uplink modules, one or two 1-port 1000BASE-SX Gigabit uplink modules, or one module of each type. High port density for fiber connectivity is available on the client side of these innovative 8275 Ethernet Workgroup Switch 318 and 322 models.



Model 318



Model 322



Model 326

Features	Benefits
MAC address support	Large MAC address table (8192 addresses) supports downstream devices.
Backplane capacity and throughput	5-Gbps internal backplane capacity and design ensure Ethernet high-bandwidth throughput.
Forwarding	Cut-through and store-and-forward switching modes deliver optimal performance in error-free networks.
Buffering and flow control	Improves switch efficiency by reducing packet loss under heavy loads or congested conditions.
Port trunking	Provides high-speed connectivity between switches to reduce network bottlenecks and increase bandwidth.
802.1d Spanning Tree	Allows creation of redundant paths and protects against cable and equipment failures in mission-critical applications.

Network management

Simple Network Management Protocol (SNMP) can be used to configure the 8275 for store-and-forward operation when deployed for Ethernet-to-Ethernet transmission. The 8275 supports four RMON groups—events, alarms, statistics and history. The 8275 is designed to support customer setup (CSU) and automatically become operational from default configuration.

Support for the industry-based SNMP management MIBs allows the 8275 switch to be managed by any SNMP-based management system. The IBM 8275 Models 318, 322 and 326 support the following standard MIBs:

- IETF SNMP MIB-II
- Bridge MIB
- Remote Monitoring MIBs
 - RMON MIB
 - Standard VLAN MIBs
- Web-based management

High-performance switching capabilities

Consistent with other members of the IBM Ethernet switch family, the new 8275 models support half- and full-duplex communication on all ports, cut-through switching, store-and-forward switching, optional VLAN support, VPD, SNMP, BootP initialization and a local EIA-232 port for out-of-band management.

VLAN-ready for configurable deployments

The IBM 8275 Fast Ethernet Workgroup Switch can be integrated into virtual local area networks (VLANs) with ease. For network applications that require traffic pattern control, heightened security or broadcast behavior control, administrators and engineers are calling upon VLANs to help users separated by geography to share information.

The IBM 8275 Fast Ethernet Workgroup Switch defines a VLAN as a group of ports that together comprise a single multicast domain. All network end stations connected to the group of ports can communicate with one another, yet broadcast packets received on a port in a particular VLAN will not be transmitted to ports that are not designated as members of the VLAN.

Beyond the ability to configure complementary ports for data transmission, VLANs enable you to gather individual LAN resources distributed across the entire enterprise. With VLAN support from IBM, key properties of the accounting department LAN, for example, could be integrated securely into the sales department LAN. This ability to group allied enterprise assets yields powerful results—more organizational communication and well-informed workgroups.

Web-based management capabilities

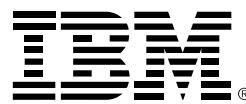
Embedded within the switch will be Web-based management, which will allow HTML and Java™-based management of the switch. The Java-based features allow full graphical management of the switch with point-and-click capabilities to probe the status of individual ports.

Ease of use

The 8275 Models can be mounted in standard 19-inch racks or placed on a horizontal surface (for example on a tabletop). LEDs on the front panel provide status information for all of the ports including expansion module, overall status of the box and power status.

IBM 8275 Fast Ethernet Workgroup Switch Models 318, 322 and 326 at a glance

Models	Port configurations
8275 Model 318	16-port FX configuration
8275 Model 322	12-port TX plus 8-port FX configuration
8275 Model 326	24-port TX configuration
Physical specifications	Width: 441 mm (17.4 in.) Depth: 264 mm (10.4 in.) Height: 113 mm (4.4 in.) including rubber feet Weight: Model 318: 6.85 kg (15.1 lb) Model 322: 6.89 kg (15.2 lb) Model 326: 6.93 kg (15.3 lb)
Operating environment	Temperature: 10° to 40°C (50° to 104°F) Relative humidity: 8% to 80% Wet bulb (caloric value): kcal/Hr or BTU Model 318: 124 W, 423 BTU/hr Model 322: 123 W, 420 BTU/hr Model 326: 127 W, 433 BTU/hr Electrical power: 0.30 kVa Noise level: 40.0 dBA Leakage and starting current: 0.28/21.6 A 0.5 mA/30 A @ 115V or 60 A@ 230 V
Available uplinks	1-port 1000BASE-SX Gigabit Ethernet uplink 2-port 100BASE-FX fiber uplink
Management	<i>Ports:</i> 9-pin male, D-type EIA-232 port <i>Protocols:</i> SMNP Web-based management RMON (events, alarms, statistics and history) Java Management Application Telnet MIBs (SNMP, MIB-II, Bridge, RMON and VLAN) Local and remote out-of-band management
Installation	Can be mounted in a standard 19-inch rack or on a flat surface
Standards compliance	<i>Electromagnetic Standards:</i> Australia/New Zealand EMI (CISPR-22A) EN55022 Class A (CISPR-22A) (Models 318 and 322) EN55022 Class B (CISPR-22B) with shielded cables (Model 326 only) FCC Class A (U.S.A.) FCC Class B (U.S.A.) ICES-003 Class A (Canada) Taiwan EMI (FCC A) VCCI Class A (Japan)
Warranty	One year
Year 2000 ready	The IBM 8275 Fast Ethernet Workgroup Switch Models 318, 322 and 326 are year 2000 ready when used in accordance with their associated documentation and are capable of correctly processing, providing and receiving data within and between the 20th and 21st centuries, provided all other hardware, software, and/or firmware used with the products properly exchange accurate data with them.
ISO 9000	The IBM 8275 Fast Ethernet Workgroup Switch Models 318, 322 and 326 were developed and are manufactured under a registered ISO 9000 quality management system.



For more information

To find out more information about the IBM 8275 Fast Ethernet Workgroup Switch Models 318, 322 and 326 and other IBM communications and networking products, contact your IBM representative or call IBM Direct at 1 800 IBM-CALL (1 800 426-2555). You can access the IBM Networking Home Page at: www.networking.ibm.com

© International Business Machines Corporation 1999

IBM Corporation
Department TYCA
PO Box 12195
RTP NC 27709

Printed in the United States of America
2-99

All Rights Reserved

References in this publication to IBM products or services do not imply that IBM intends to make them available in all countries in which IBM operates.

IBM is a trademark of International Business Machines Corporation in the United States and/or other countries.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and/or other countries.

Other company, product and service names may be trademarks or service marks of others.



Printed on recycled paper



For Position Only

G224-4590-00